

HOT MIX ASPHALT (HMA) PAVEMENT SHALL BE 7" MIN. THICK, OR MATCH EXISTING HMA PAVEMENT THICKNESS, WHICHEVER IS GREATER. IF EXISTING HMA PAVEMENT IS GREATER THAN 7", THE HMA DIFFERENCE SHALL CONSIST OF HMA BASE COURSE (OR BINDER COURSE, AS APPROVED BY THE COMMISSIONER OF PUBLIC WORKS AND/OR VILLAGE ENGINEER, FOR SMALL QUANTITIES)

REFER TO VILLAGE STANDARD BITUMINOUS CONCRETE PAVEMENT CONSTRUCTION DETAIL FOR NYSDOT HMA TYPE AND ITEM NUMBERS

CAP SEAM WITH HOT ASPHALT CONCRETE (AC) SEALANT (i.e. MISCELLANEOUS ASPHALT CEMENT, NYSDOT ITEM NO. 618.07)

AT SAWCUT LINES, APPLY TACK COAT (NYSDOT ITEM NO. 407.0101) ALONG VERTICAL FACE OF JOINT BETWEEN EXISTING AND NEW ASPHALT CONCRETE PAVEMENT

PAVEMENT KEY IS REQUIRED FOR PAVEMENT REPLACEMENT FOR PROPOSED PIPE TRENCHES IN EXISTING BITUMINOUS CONCRETE OR PORTLAND CEMENT CONCRETE PAVEMENT

(REFER TO NOTES 1 AND 12)
APPROVED TRENCH BACKFILL SHALL INCLUDE NYSDOT ITEM NO. 204.01 "CONTROLLED LOW STRENGTH MATERIAL (CLSM)" OR 204.02 "CLSM (NO FLY ASH)". IF GROUNDWATER IS ENCOUNTERED AND AT THE VILLAGE ENGINEER'S/DPW DISCRETION, DEWATERING OPERATIONS CANNOT BE ACCOMPLISHED, BACKFILL MATERIAL SHALL BE CLEAN WASHED 3/4" CRUSHED STONE (NYSDOT ITEM NO. 623.12, SIZE DESIGNATION 2), AS ORDERED BY THE COMMISSIONER OF PUBLIC WORKS AND/OR VILLAGE ENGINEER.

APPROVED COMPACTED SELECT GRANULAR FILL (NYSDOT ITEM NO. 203.07) OR CLEAN WASHED 3/4" CRUSHED STONE (NYSDOT ITEM NO. 623.12, SIZE DESIGNATION 2) WHEN ROCK IS NOT ENCOUNTERED

APPROVED COMPACTED SUBGRADE

TRENCH UNDER NON-PAVED SURFACE
FINISHED GRADE

TRENCH UNDER ASPHALT CONCRETE PAVEMENT (HMA) ROADWAY OR SHOULDER

SURFACE RESTORATION (REFER TO DRAWINGS)

APPROVED COMPACTED SUITABLE MATERIAL FROM EXCAVATION

PAYMENT LINES FOR TRENCH AND CULVERT EXCAVATION—O.G.(NYSDOT ITEM NO. 206.04 OR TRENCH AND CULVERT EXCAVATION (NYSDOT ITEM NO. 206.02)

OR EXCAVATION AND DISPOSAL OF ROCK (NYSDOT ITEM NO. 203.0010063)

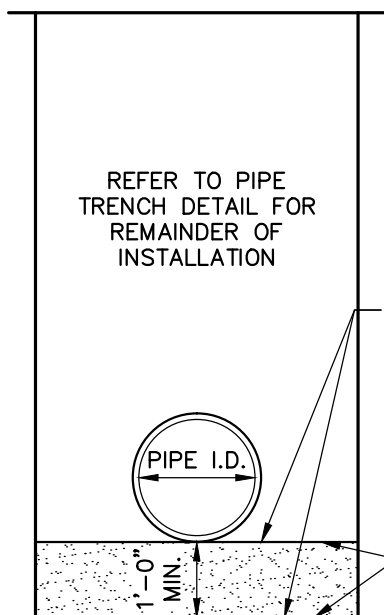
AS ORDERED BY THE COMMISSIONER OF PUBLIC WORKS AND/OR VILLAGE ENGINEER

EXCAVATION PROTECTION SYSTEM AS REQUIRED (NYSDOT ITEM NO. 552.16)

APPROVED CLEAN WASHED 3/4" CRUSHED STONE (NYSDOT ITEM NO. 623.12, SIZE DESIGNATION 2)

MIN. 6" SAND BEDDING (IF ROCK IS ENCOUNTERED)

NEW OR RELOCATED PIPE TRENCH DETAIL



PIPE INSTALLATION IN UNSTABLE OR UNSUITABLE SOIL CONDITIONS

EXCAVATION PAYMENT WIDTHS

PIPE INSIDE DIAMETER (I.D.)	TRENCH WIDTH
3	3'-0"
4	3'-0"
6	3'-0"
8	3'-0"
10	3'-0"
12	3'-0"
14	3'-6"
16	3'-6"
18	3'-6"
20	4'-0"
24	4'-0"
30	4'-6"
36	5'-0"
42	5'-6"
48	6'-0"
54	6'-6"
60	7'-0"
64	7'-6"

VILLAGE OF CROTON-ON-HUDSON
STANDARD CONSTRUCTION DETAILS

PIPE TRENCH AND ASPHALT CONCRETE PAVEMENT RESTORATION

DESIGNED BY: ARC, PE CHECKED BY: ARC, PE
DRAWN BY: ARC, PE VOOH SD 2A_Pipe Trench and



VILLAGE OF CROTON-ON-HUDSON
STANLEY H. KELLERHOUSE MUNICIPAL BUILDING
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PHONE: (914) 271-3775
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PROJECT: DETAILS
SCALE: NOT TO SCALE
DATE: 05/21/2015

SD-2A

NOTES:

1. FOR PIPE TRENCH INSTALLATION, CONTROLLED LOW STRENGTH MATERIAL (CLSM — NYSDOT ITEM NO. 204.01 OR 204.02) SHALL BE USED AS THE PIPE TRENCH BACKFILL MATERIAL. THE CLSM SHALL EXTEND FROM THE BOTTOM OF THE PIPE TRENCH UP TO THE BOTTOM OF THE ASPHALT CONCRETE BASE COURSE. SUBMITTALS OF THE CLSM (NYSDOT ITEM NO. 204.01 OR 204.02) SHALL BE PROVIDED TO THE COMMISSIONER OF PUBLIC WORKS AND/OR VILLAGE ENGINEER FOR REVIEW AND APPROVAL.
2. UNLESS OTHERWISE NOTED, THE EXCAVATION AND EMBANKMENT AND TRENCH AND CULVERT EXCAVATION SHALL MEET THE SPECIFICATIONS OUTLINED IN SECTIONS 203 AND 206 AND OTHER APPLICABLE SECTIONS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, DATED MAY 7, 2015 WITH LATEST REVISIONS.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ELEVATIONS OF EXISTING UTILITIES TO ENSURE ADEQUATE CLEARANCE FOR THE SEWER LINE EXISTS. THE CONTRACTOR SHALL NOTIFY THE COMMISSIONER OF PUBLIC WORKS AND THE VILLAGE ENGINEER (IN WRITING) OF CONFLICTING ELEVATIONS, ALLOWING THE ENGINEER ADEQUATE TIME TO REVISE GRADES WITHOUT NECESSITATING REMOVAL AND RECONSTRUCTION OF WORK ALREADY COMPLETED BY THE CONTRACTOR.
4. THE TOP PAYMENT LINE FOR TRENCH EXCAVATION SHALL BE PER NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION SECTION 206 LAST REVISED MAY 7, 2015 WITH LATEST REVISIONS.
5. THE MINIMUM TRENCH WIDTH MAY BE ADJUSTED TO (O.D.+12"), IF CONTROLLED LOW STRENGTH MATERIAL (CLSM) IS TO BE USED AS BACKFILL.
6. BEDDING BELOW THE PIPE INVERT SHALL BE REQUIRED FOR ALL SOIL CONDITIONS (i.e. STABLE, UNSTABLE, UNSUITABLE AND ROCK). PLEASE REFER TO THIS DETAIL FOR THE REQUIRED BEDDING MATERIAL FOR EACH SOIL CONDITION.
7. IF UNSTABLE OR UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED NEAR THE INVERT ELEVATION, A MINIMUM OF 1 FOOT AND A MAXIMUM OF 2 FEET OF MATERIAL SHALL BE EXCAVATED AND REPLACED WITH SELECT GRANULAR FILL. ADDITIONAL PAYMENT WILL BE MADE FOR MATERIAL PLACED TO TREAT UNSTABLE OR UNSUITABLE CONDITIONS.
8. BACKFILL SHALL BE INSTALLED AND COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS OF NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION SECTION 203 LAST REVISED MAY 7, 2015 WITH LATEST REVISIONS.
9. REFER TO PROOF ROLLING RESTRICTIONS IN §203-3.13E OF NYSDOT STANDARD SPECIFICATIONS.
10. AT THE CONTRACTOR'S RISK, CONSTRUCTION EQUIPMENT MAY BE ALLOWED TO CROSS OVER A PIPE INSTALLATION USING RAMPS CONSTRUCTED AS SHOWN IN NYSDOT PIPE TRENCH METHOD B-1 OR B-2 COMPACTED IN CONFORMANCE WITH THE REQUIREMENTS OF §203-3.12 OF NYSDOT STANDARD SPECIFICATIONS. ALL RAMPS WHICH CANNOT BE USED AS PART OF THE COMPLETED EMBANKMENT ARE INSTALLED AND REMOVED AT THE CONTRACTOR'S EXPENSE. ANY PIPE OR STRUCTURE DAMAGED OR DISTURBED BY THESE ACTIVITIES MUST BE REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
11. THE VILLAGE ENGINEER SHALL INSPECT THE PIPE TRENCH PRIOR TO AND DURING BACKFILL. THE OWNER, OWNER'S REPRESENTATIVE AND/OR CONTRACTOR SHALL CONTACT THE COMMISSIONER OF PUBLIC WORKS AT (914) 271-3775 OR EMAIL PUBLIC WORKS AND/OR THE VILLAGE ENGINEER (24) HOURS PRIOR TO START OF THIS WORK.
12. ENCASE ALL DUCTILE IRON PIPE (DIP) IN POLYETHYLENE. THE POLYETHYLENE SHALL BE FURNISHED IN EITHER TUBE OR SHEET FORM. INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE AMERICAN NATIONAL STANDARD FOR POLYETHYLENE ENCASEMENT FOR DUCTILE IRON PIPE SYSTEMS (ANSI/AWWA C105 — LATEST REVISION). ALL JOINTS AND FITTINGS (VALVES, TEES, BENDS, REDUCERS, OFFSETS, ETC.) SHALL HAVE POLYETHYLENE ENCASEMENT INSTALLED PER MANUFACTURER'S REQUIREMENTS AND PROCEDURES. THE POLYETHYLENE ENCASEMENT SHALL BE INSTALLED WITH A MINIMUM LAP OF ONE (1) FOOT AT JOINTS. TAPE THE POLYETHYLENE ENCASEMENT EVERY THREE (3) FEET AND AT JOINTS SUFFICIENTLY TO PREVENT SOIL FROM COMING INTO CONTACT WITH THE PIPE. CAREFULLY PLACE THE POLYETHYLENE ENCASEMENT AROUND THE PIPE AND FITTINGS AND CAREFULLY BACKFILL TO PREVENT TEARS AND PUNCTURES. PROMPTLY REPAIR ALL TEARS AND PUNCTURES IN THE POLYETHYLENE PER MANUFACTURER'S RECOMMENDATIONS.

VILLAGE OF CROTON-ON-HUDSON
STANDARD CONSTRUCTION DETAILS

PREPARED IN THE
OFFICE OF THE
COMMISSIONER OF PUBLIC WORKS

**PIPE TRENCH AND
ASPHALT CONCRETE
PAVEMENT RESTORATION**

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